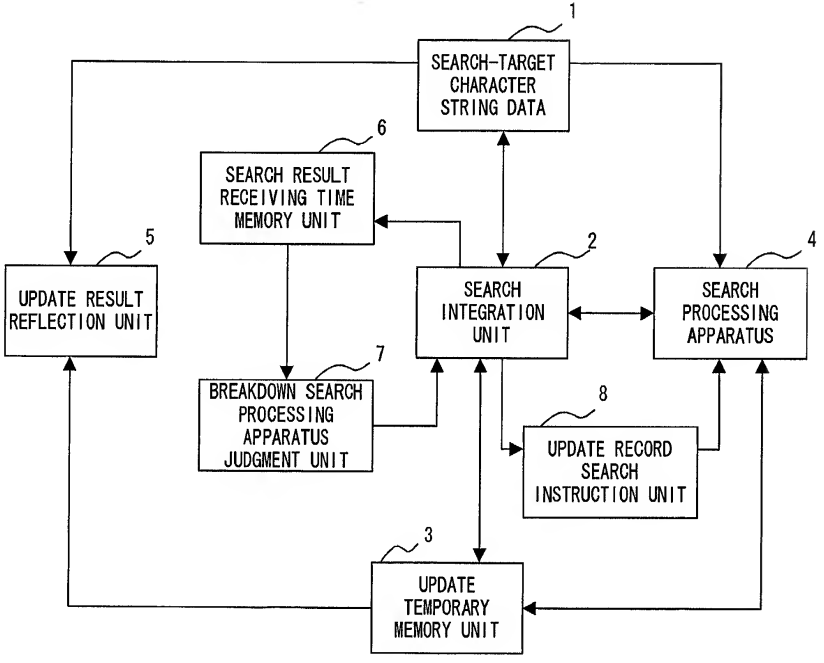

1
SEARCH-TARGET CHARACTER STRING DATA
6
SEARCH RESULT RECEIVING TIME MEMORY UNIT
5
UPDATE RESULT REFLECTION UNIT
2
SEARCH INTEGRATION UNIT
4
SEARCH PROCESSING APPARATUS
7
BREAKDOWN SEARCH PROCESSING APPARATUS JUDGMENT UNIT
8
UPDATE RECORD SEARCH INSTRUCTION UNIT
3
UPDATE TEMPORARY MEMORY UNIT

FIG. 1

Searched - Serialized

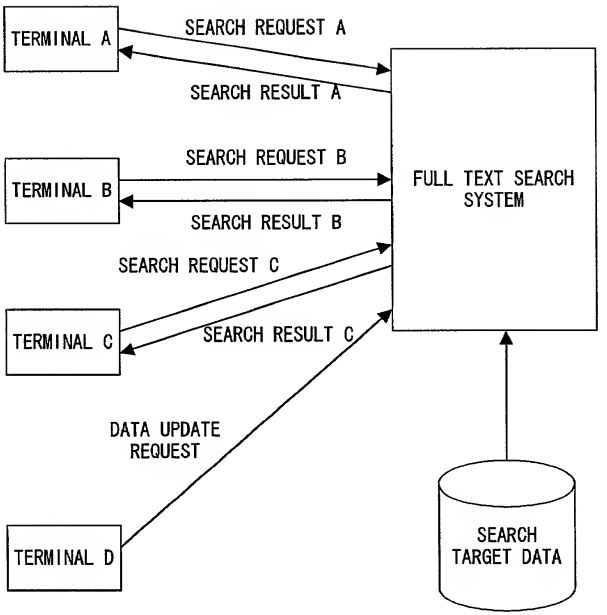


FIG. 2

```
[K]<NO>1[K]<NAME>○○○○[K]<ALMA MATER>AA UNIVERSITY[K]<BIRTHPLACE>○○[K]<SEX>MALE[K][R]
[K]<NO>2[K]<NAME>×××[K]<ALMA MATER>BB UNIVERSITY[K]<BIRTHPLACE>××[K]<SEX>FEMALE[K][R]
[K]<NO>3[K]<NAME>△△△△[K]<ALMA MATER>CC UNIVERSITY[K]<BIRTHPLACE>△△[K]<SEX>MALE[K][R]
                                        .
                                        .
                                        .
```

FIG. 3

	ITEM TAG	SEARCH WORD
A	<NAME>	OOOO
B	<ALMA MATER>	AA UNIVERSITY
SEARCH CONDITION FORMULA	A and B	

FIG. 4

Document Description

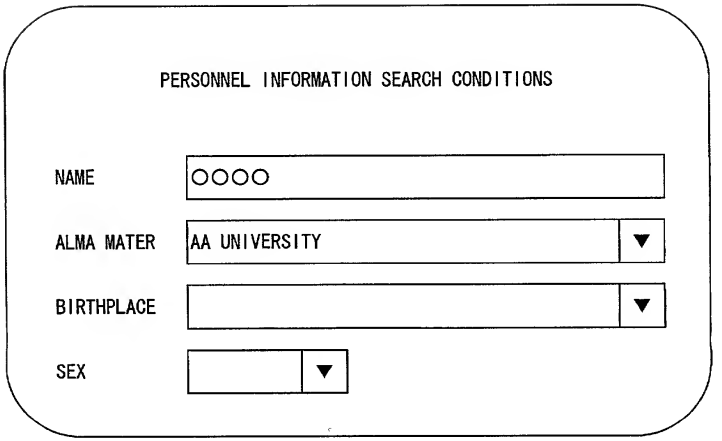


FIG. 5

Machine Translated by Google

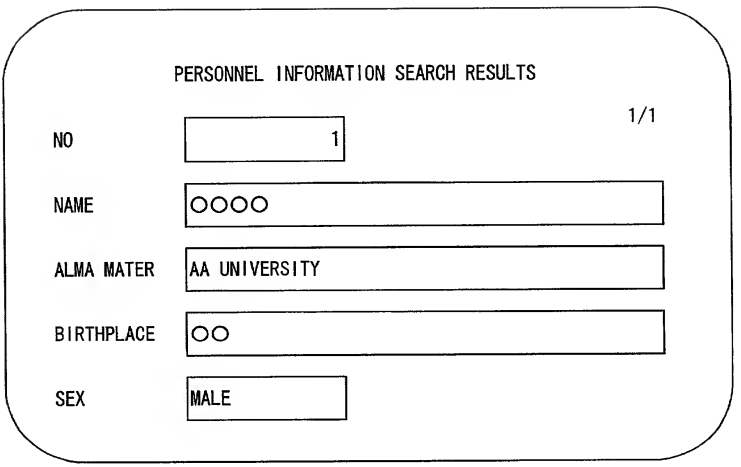
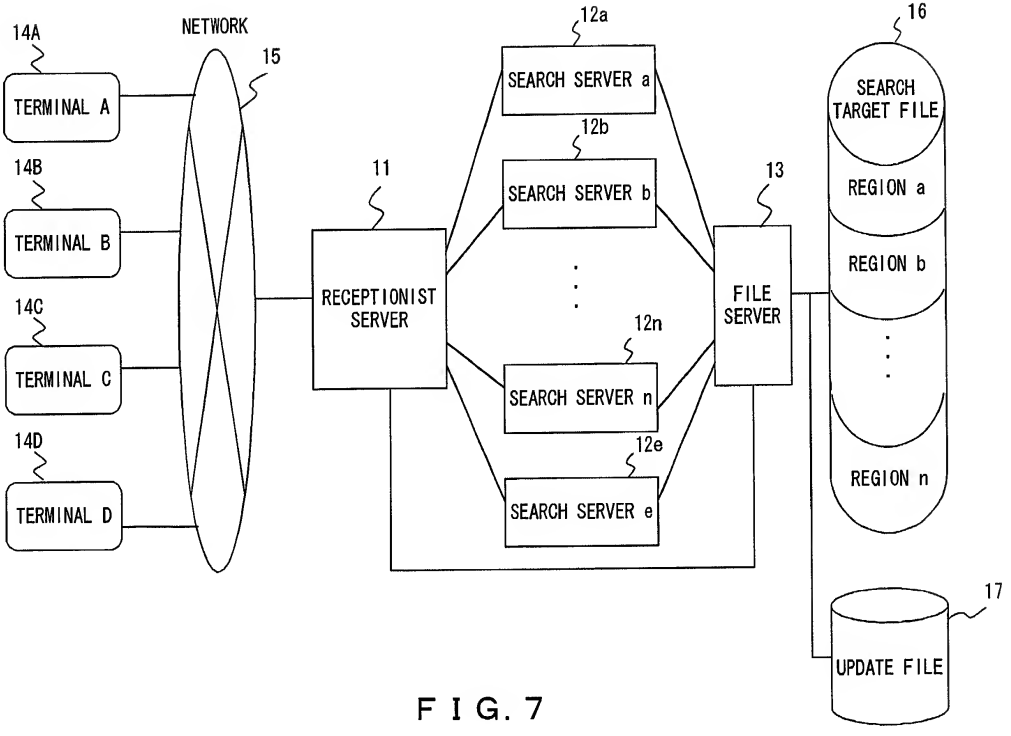


FIG. 6


14A
TERMINAL A
14B
TERMINAL B
14C
TERMINAL C
14D
TERMINAL D
NETWORK
15
11
RECEPTIONIST SERVER
12a
SEARCH SERVER a
12b
SEARCH SERVER b
12n
SEARCH SERVER n
12e
SEARCH SERVER e
13
FILE SERVER
16
SEARCH TARGET FILE
REGION a
REGION b
REGION n
17
UPDATE FILE

F I G. 7

Printed: 5/15/2007

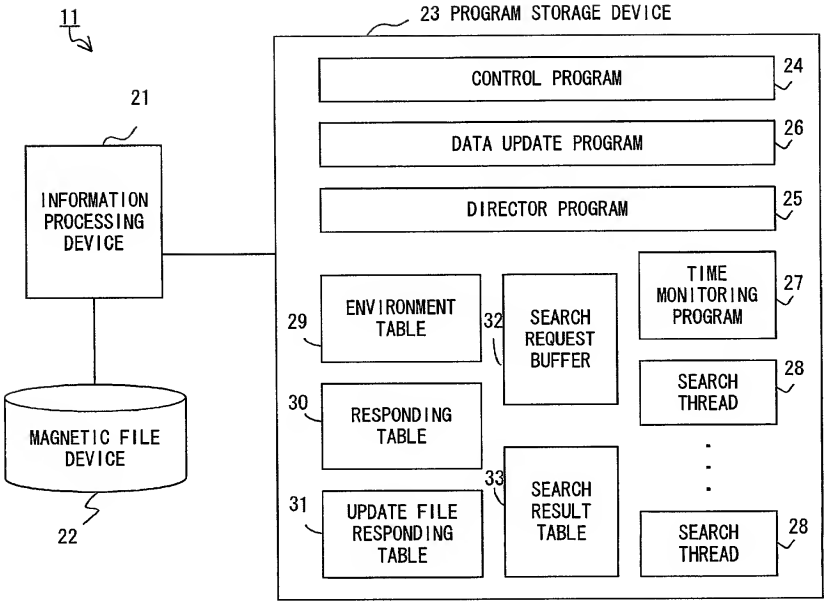


FIG. 8

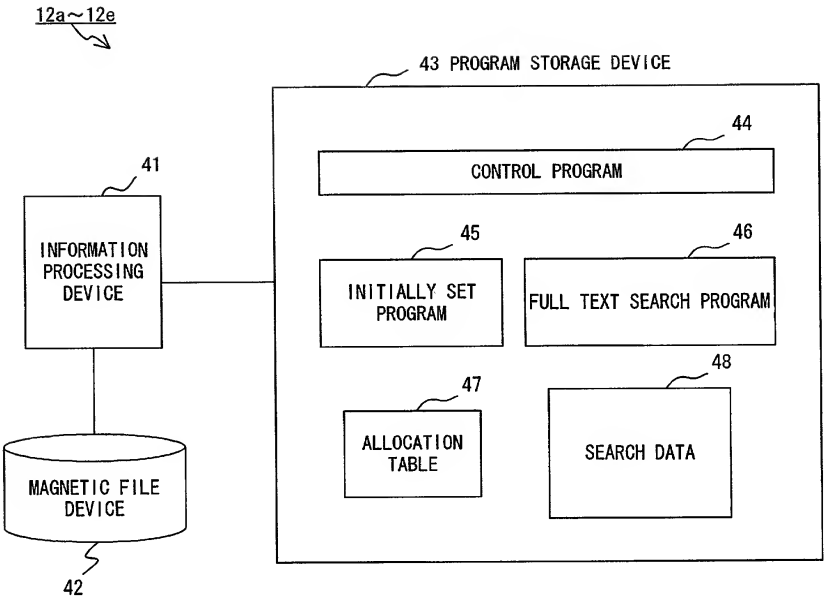

12a~12e
43 PROGRAM STORAGE DEVICE
44
CONTROL PROGRAM
41
INFORMATION PROCESSING DEVICE
45
INITIALLY SET PROGRAM
46
FULL TEXT SEARCH PROGRAM
48
47
ALLOCATION TABLE
SEARCH DATA
MAGNETIC FILE DEVICE
42

FIG. 9

Patent Application

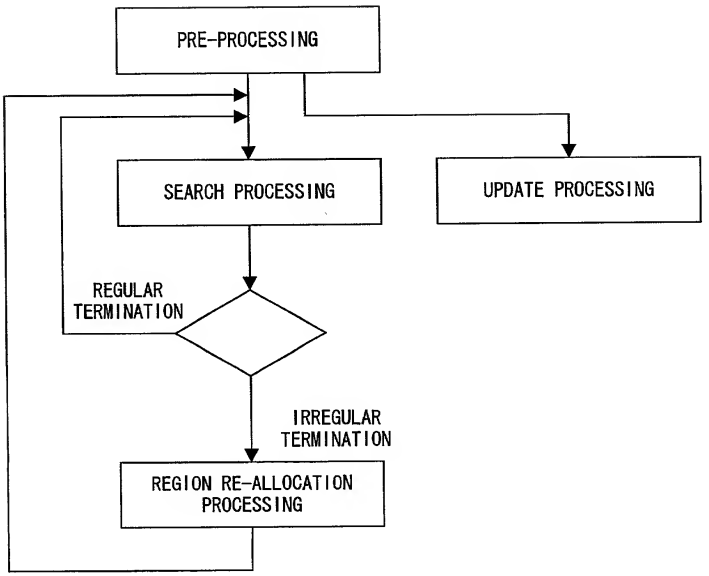


FIG. 10

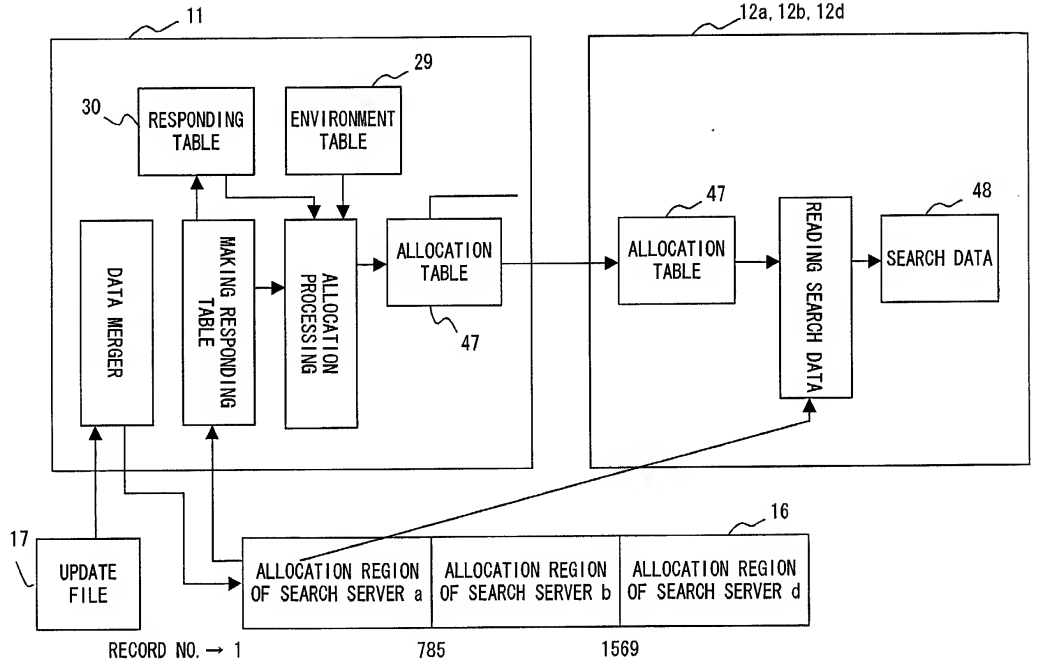

11
12a, 12b, 12d
29
30
RESPONDING TABLE
ENVIRONMENT TABLE
47
48
DATA MERGER
MAKING RESPONDING TABLE
ALLOCATION PROCESSING
ALLOCATION TABLE
47
ALLOCATION TABLE
READING SEARCH DATA
SEARCH DATA
16
17
UPDATE FILE
ALLOCATION REGION OF SEARCH SERVER a
ALLOCATION REGION OF SEARCH SERVER b
ALLOCATION REGION OF SEARCH SERVER d
RECORD NO. → 1
785
1569

FIG. 11

EDITED SHEET

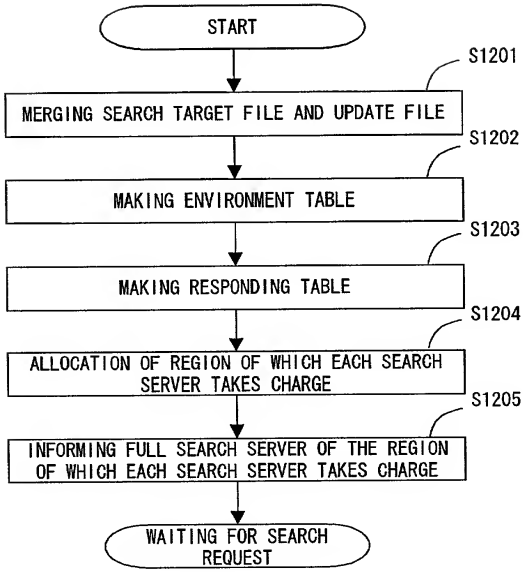


FIG. 12

29

29a SEARCH SERVER NAME	29b ADDRESS	29c STATE FLAG	29d FLAG IN CHARGE OF UPDATE FILE
SEARCH SERVER a	15. 85. 145. 01	0	0
SEARCH SERVER b	15. 85. 145. 02	0	0
SEARCH SERVER c	15. 85. 145. 03	1	0
SEARCH SERVER d	15. 85. 145. 04	0	0
SEARCH SERVER e	14. 85. 145. 05	0	1

FIG. 13

2020-05-20 05:38:00

30

30a RECORD NO.	30b TOP ADDRESS OF RECORD	30c LENGTH OF RECORD
1	0	250
2	250	580
3	830	322
4	1152	108
▪ ▪ ▪		
2351	452442	242

FIG. 14

patent-attorney

47

47a RECORD NO.	47b TOP ADDRESS OF RECORD	47c LENGTH OF RECORD
1	0	250
2	250	580
3	830	322
4	1152	108
▪ ▪ ▪		
784	168997	206

FIG. 15

patent-pending

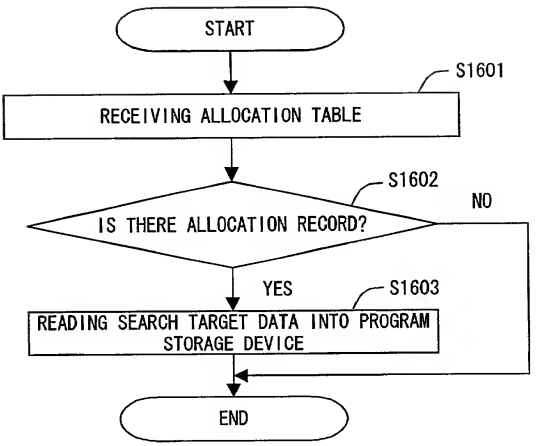


FIG. 16

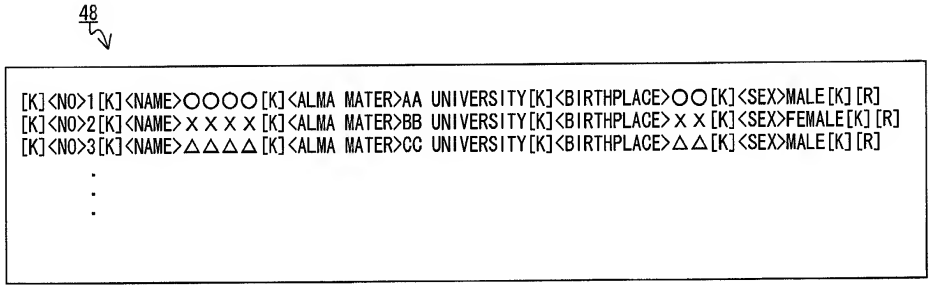

48
[K]<NO>1[K]<NAME>○○○○[K]<ALMA MATER>AA UNIVERSITY[K]<BIRTHPLACE>○○[K]<SEX>MALE[K][R]
[K]<NO>2[K]<NAME>ＸＸＸＸ[K]<ALMA MATER>BB UNIVERSITY[K]<BIRTHPLACE>ＸＸ[K]<SEX>FEMALE[K][R]
[K]<NO>3[K]<NAME>△△△△[K]<ALMA MATER>CC UNIVERSITY[K]<BIRTHPLACE>△△[K]<SEX>MALE[K][R]

FIG. 17

printed: 07/15/2004

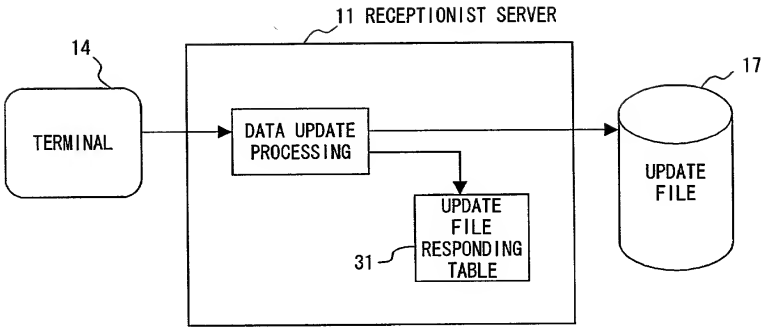


FIG. 18

2/2/2006 5:45:30 PM

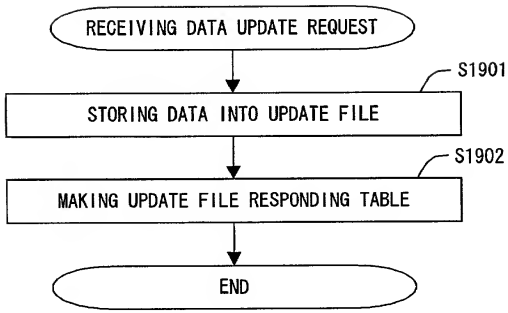


FIG. 19

2012-09-05 15:56:01

31

RECORD NO.	TOP ADDRESS OF RECORD	LENGTH OF RECORD
2352	0	224
2353	224	108
282	332	306
2354	638	278

FIG. 20

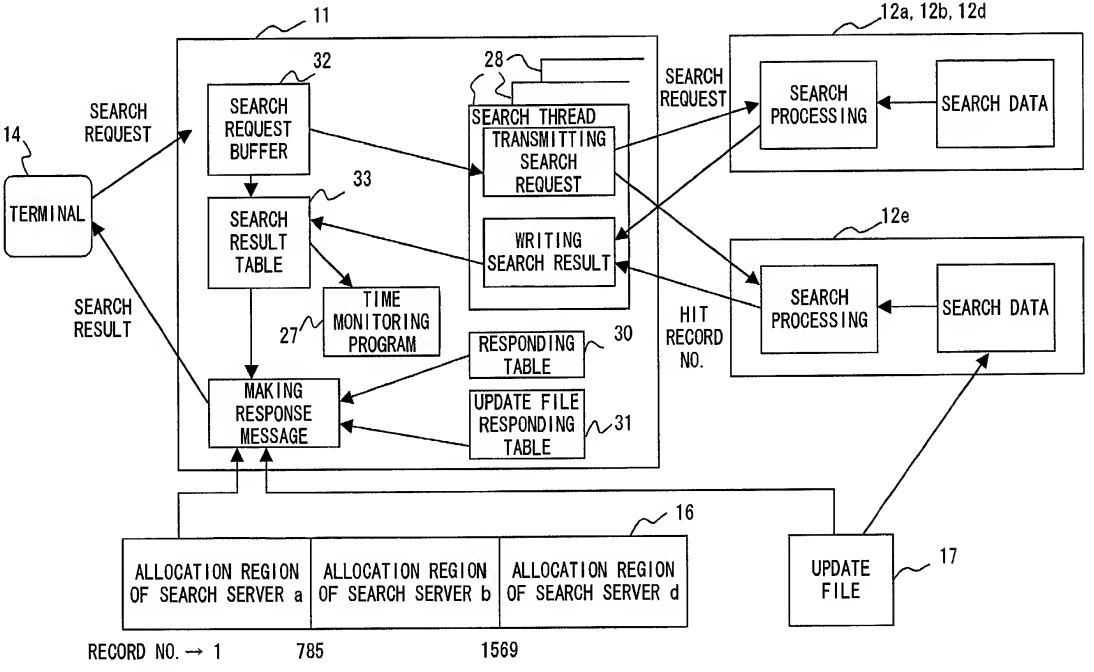

11
12a, 12b, 12d
12e
14
TERMINAL
SEARCH REQUEST
SEARCH RESULT
32
SEARCH REQUEST BUFFER
33
SEARCH RESULT TABLE
27
TIME MONITORING PROGRAM
MAKING RESPONSE MESSAGE
28
SEARCH THREAD
TRANSMITTING SEARCH REQUEST
WRITING SEARCH RESULT
RESPONDING TABLE
30
UPDATE FILE RESPONDING TABLE
31
SEARCH REQUEST
HIT RECORD NO.
SEARCH PROCESSING
SEARCH DATA
SEARCH PROCESSING
SEARCH DATA
16
ALLOCATION REGION OF SEARCH SERVER a
ALLOCATION REGION OF SEARCH SERVER b
ALLOCATION REGION OF SEARCH SERVER d
UPDATE FILE
17
RECORD NO. → 1
785
1569

FIG. 21

Attorney Docket No. 2005-0158

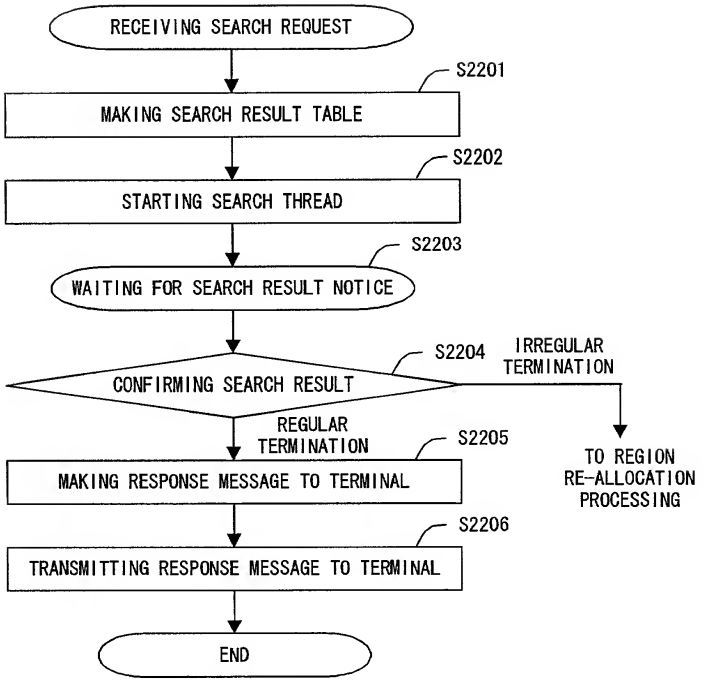


FIG. 22

Searched by eSearch

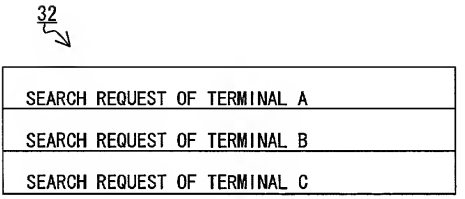


FIG. 23

33

SEARCH SERVER NAME	33a FLAG IN CHARGE OF UPDATE FILE	33b PROCESSING RESULT FLAG	33c PROCESSING FINISHING TIME	33d HIT RECORD NO.
SEARCH SERVER a	0			
SEARCH SERVER b	0			
SEARCH SERVER d	0			
SEARCH SERVER e	1			

FIG. 24

Patent Application Publication Sep. 25, 2003 Sheet 25 of 30 US 2003/0182262 A1

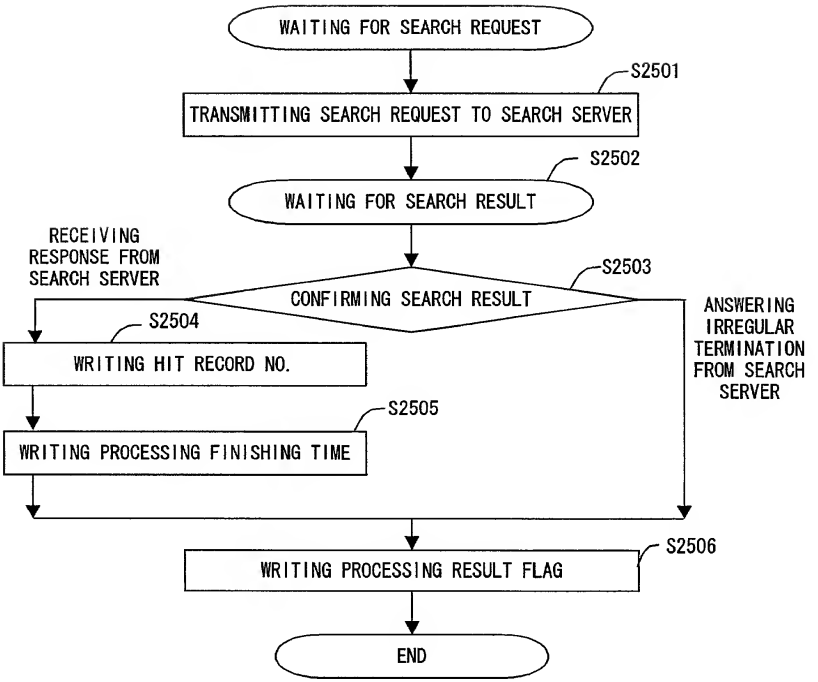


FIG. 25

HIT RECORD NO.
2,245,501

FIG. 26

33

SEARCH SERVER NAME	33a FLAG IN CHARGE OF UPDATE FILE	33b PROCESSING RESULT FLAG	33c PROCESSING FINISHING TIME	33d HIT RECORD NO.
SEARCH SERVER a	0	1	102601541	2, 245, 501
SEARCH SERVER b	0	1	102601545	
SEARCH SERVER d	0	2		
SEARCH SERVER e	1	1	102601538	2353

FIG. 27

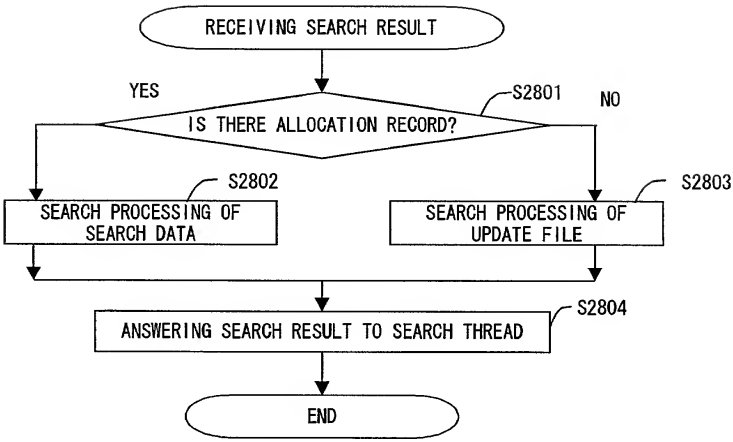

RECEIVING SEARCH RESULT
YES
S2801
IS THERE ALLOCATION RECORD?
NO
S2802
SEARCH PROCESSING OF SEARCH DATA
S2803
SEARCH PROCESSING OF UPDATE FILE
S2804
ANSWERING SEARCH RESULT TO SEARCH THREAD
END

FIG. 28

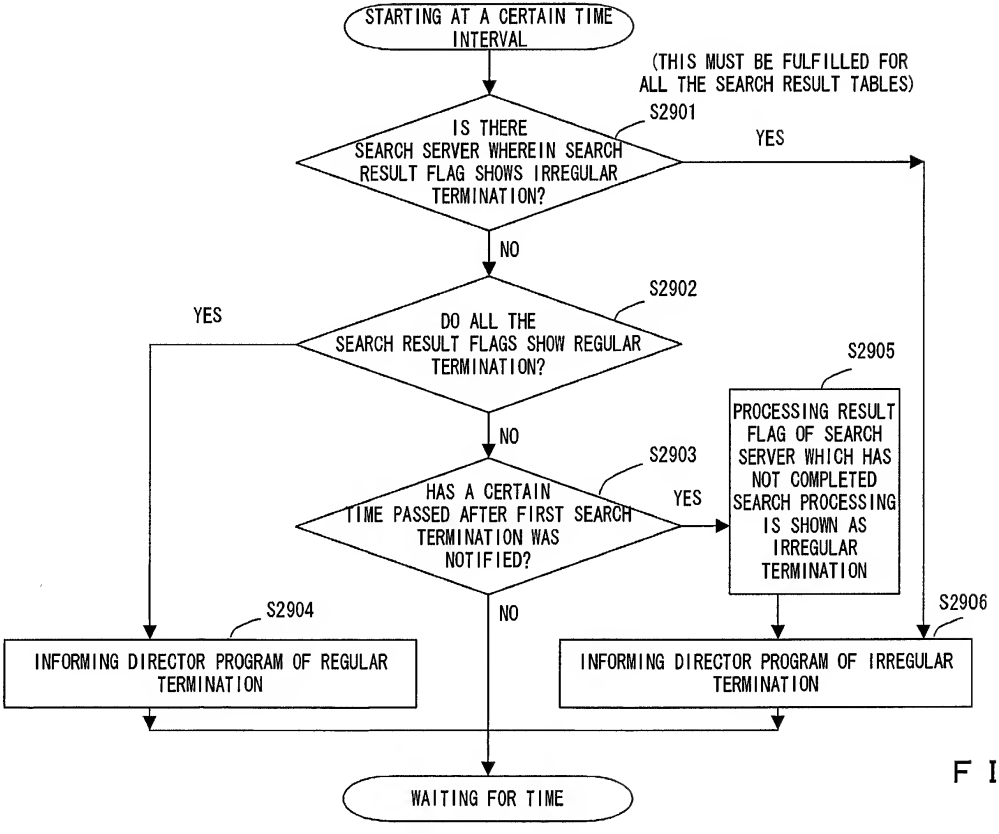

STARTING AT A CERTAIN TIME INTERVAL
(THIS MUST BE FULFILLED FOR ALL THE SEARCH RESULT TABLES)
S2901
IS THERE SEARCH SERVER WHEREIN SEARCH RESULT FLAG SHOWS IRREGULAR TERMINATION?
YES
NO
S2902
DO ALL THE SEARCH RESULT FLAGS SHOW REGULAR TERMINATION?
YES
NO
S2903
HAS A CERTAIN TIME PASSED AFTER FIRST SEARCH TERMINATION WAS NOTIFIED?
YES
NO
S2905
PROCESSING RESULT FLAG OF SEARCH SERVER WHICH HAS NOT COMPLETED SEARCH PROCESSING IS SHOWN AS IRREGULAR TERMINATION
S2904
INFORMING DIRECTOR PROGRAM OF REGULAR TERMINATION
S2906
INFORMING DIRECTOR PROGRAM OF IRREGULAR TERMINATION
WAITING FOR TIME

FIG. 29

Adobe Systems Incorporated

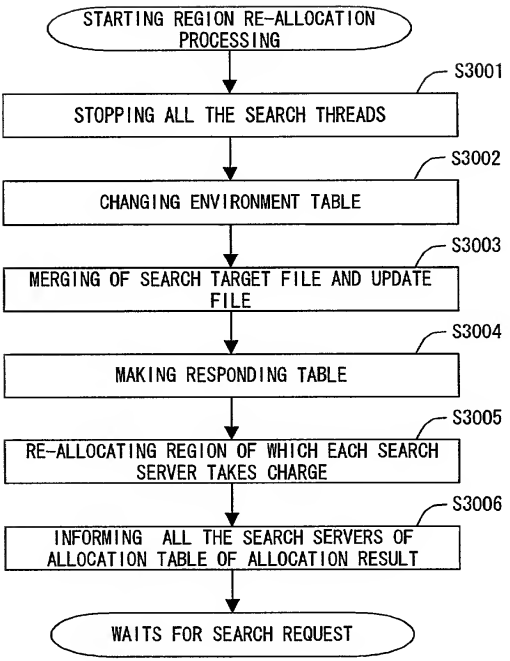


FIG. 30

29

29a SEARCH SERVER NAME	29d FLAG IN CHARGE OF UPDATE FILE	29b ADDRESS	29c STATE FLAG
SEARCH SERVER a	0	15.85.145.01	0
SEARCH SERVER b	0	15.85.145.02	0
SEARCH SERVER c	0	15.85.145.03	1
SEARCH SERVER d	0	15.85.145.04	1
SEARCH SERVER e	1	15.85.145.05	0

FIG. 31

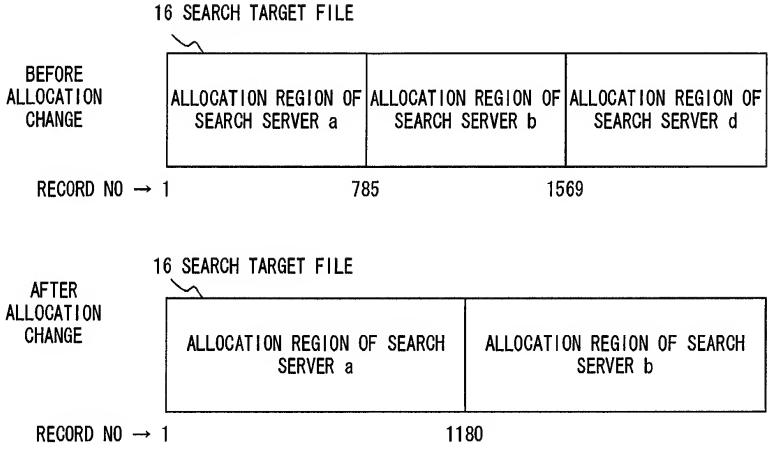

16 SEARCH TARGET FILE
BEFORE ALLOCATION CHANGE
ALLOCATION REGION OF SEARCH SERVER a
ALLOCATION REGION OF SEARCH SERVER b
ALLOCATION REGION OF SEARCH SERVER d
RECORD NO → 1
785
1569
16 SEARCH TARGET FILE
AFTER ALLOCATION CHANGE
ALLOCATION REGION OF SEARCH SERVER a
ALLOCATION REGION OF SEARCH SERVER b
RECORD NO → 1
1180

FIG. 32

47

47a RECORD NO.	47b TOP ADDRESS OF RECORD	47c LENGTH OF RECORD
1	0	250
2	250	580
3	830	322
4	1152	108
▪ ▪ ▪		
1179	246146	188

FIG. 33

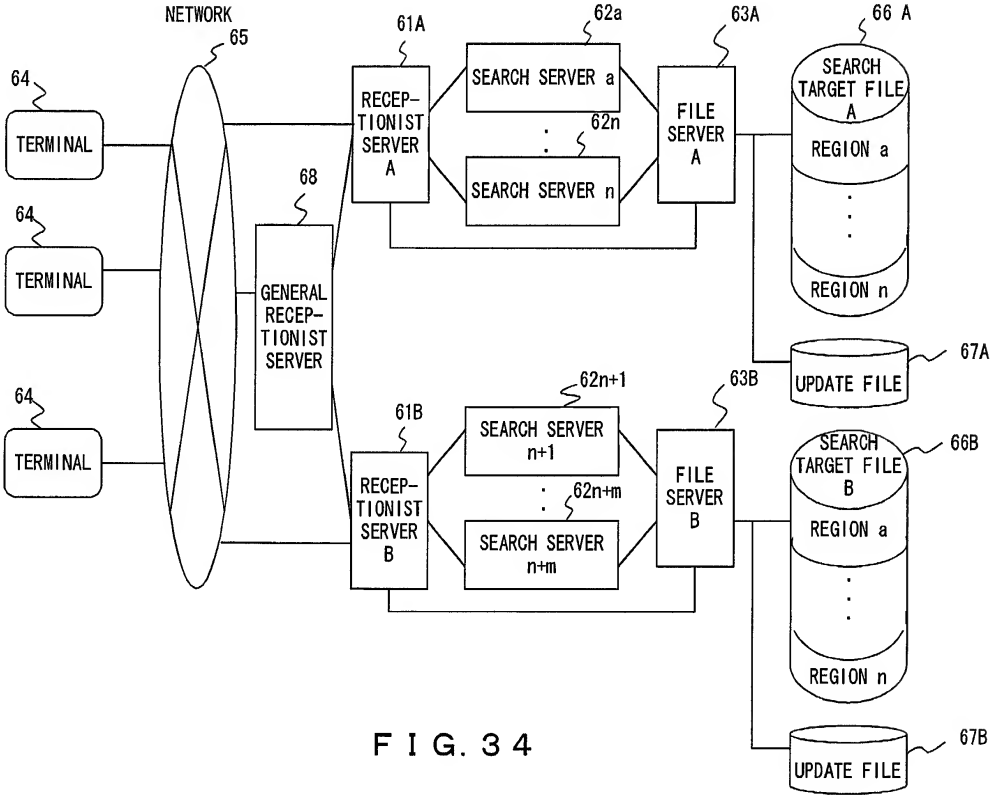

NETWORK
65
64
TERMINAL
64
TERMINAL
64
TERMINAL
68
GENERAL RECEP-TIONIST SERVER
61A
RECEP-TIONIST SERVER A
62a
SEARCH SERVER a
62n
SEARCH SERVER n
63A
FILE SERVER A
66 A
SEARCH TARGET FILE A
REGION a
REGION n
67A
UPDATE FILE
61B
RECEP-TIONIST SERVER B
62n+1
SEARCH SERVER n+1
62n+m
SEARCH SERVER n+m
63B
FILE SERVER B
66B
SEARCH TARGET FILE B
REGION a
REGION n
67B
UPDATE FILE

FIG. 34

Scanned at Google

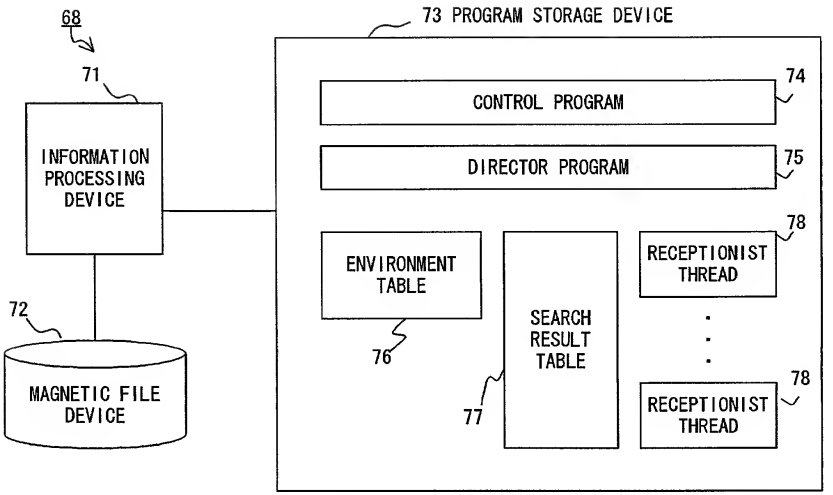


FIG. 35

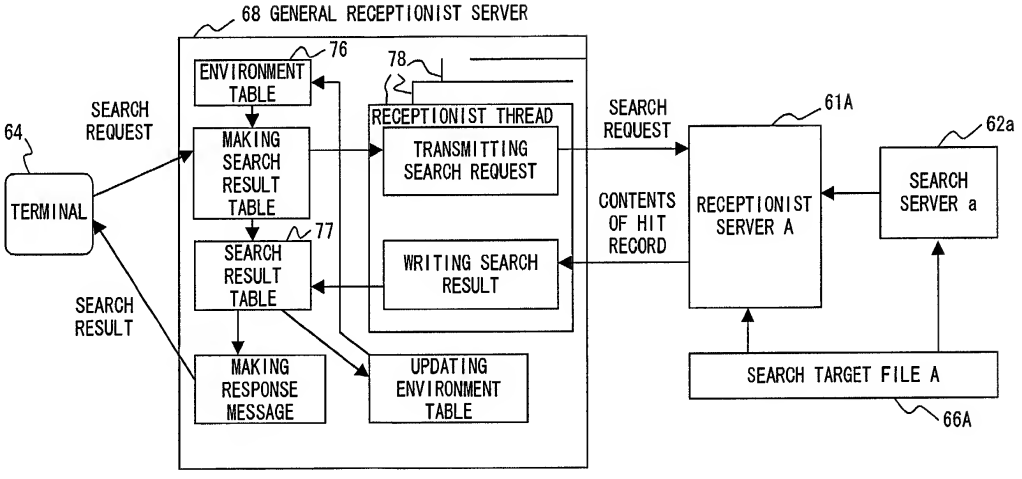

68 GENERAL RECEPTIONIST SERVER
ENVIRONMENT TABLE
76
78
RECEPTIONIST THREAD
TRANSMITTING SEARCH REQUEST
WRITING SEARCH RESULT
MAKING SEARCH RESULT TABLE
SEARCH RESULT TABLE
77
MAKING RESPONSE MESSAGE
UPDATING ENVIRONMENT TABLE
64
TERMINAL
SEARCH REQUEST
SEARCH RESULT
SEARCH REQUEST
CONTENTS OF HIT RECORD
61A
RECEPTIONIST SERVER A
62a
SEARCH SERVER a
SEARCH TARGET FILE A
66A

FIG. 36

76

76a RECEPTIONIST SERVER NAME	76b ADDRESS	76c STATE FLAG
RECEPTIONIST SERVER a	16. 85. 102. 01	0
RECEPTIONIST SERVER b	22. 36. 155. 02	0
RECEPTIONIST SERVER c	18. 24. 233. 01	0
RECEPTIONIST SERVER d	34. 26. 111. 01	1
RECEPTIONIST SERVER e	45. 88. 188. 02	0

FIG. 37

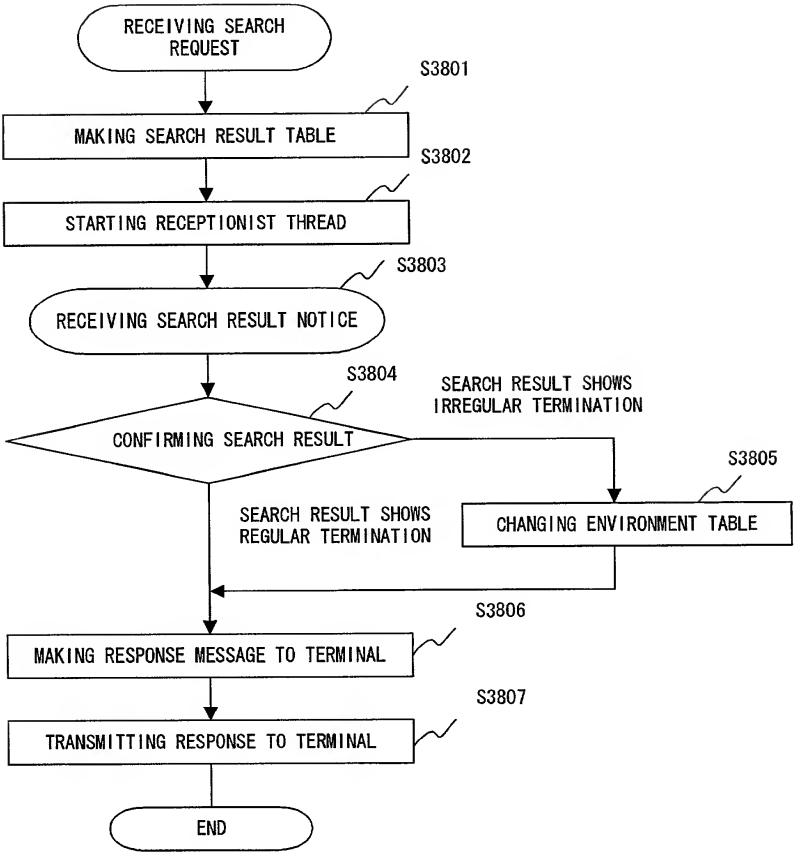

RECEIVING SEARCH REQUEST
S3801
MAKING SEARCH RESULT TABLE
S3802
STARTING RECEPTIONIST THREAD
S3803
RECEIVING SEARCH RESULT NOTICE
S3804
CONFIRMING SEARCH RESULT
SEARCH RESULT SHOWS IRREGULAR TERMINATION
S3805
CHANGING ENVIRONMENT TABLE
SEARCH RESULT SHOWS REGULAR TERMINATION
S3806
MAKING RESPONSE MESSAGE TO TERMINAL
S3807
TRANSMITTING RESPONSE TO TERMINAL
END

FIG. 38

77

77a RECEPTIONIST SERVER NAME	77b PROCESSING RESULT FLAG	77c SEARCH RESULT
RECEPTIONIST SERVER a		
RECEPTIONIST SERVER b		
RECEPTIONIST SERVER c		
RECEPTIONIST SERVER c		

FIG. 39

EPSON-SEIKO-0015

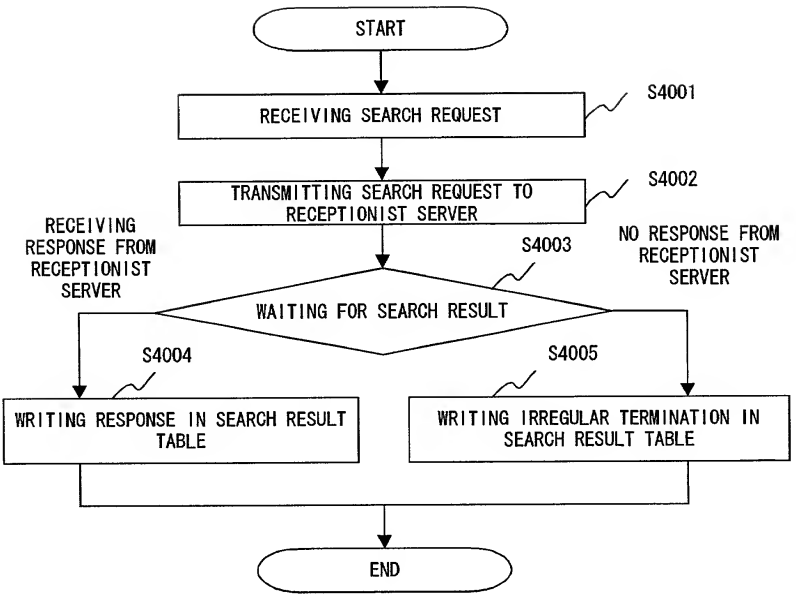


FIG. 40

CONTESTS OF HIT RECORD
[K]<NAME>OO……, [K]<NAME>OO…

FIG. 41

77

77a RECEPTIONIST SERVER NAME	77b PROCESSING RESULT FLAG	77c SEARCH RESULT
RECEPTIONIST SERVER a	1	[K]<NAME>○○○○
RECEPTIONIST SERVER b	1	
RECEPTIONIST SERVER c	2	
RECEPTIONIST SERVER e	1	[K]<NAME>○○○○

FIG. 42

76

76a	76b	76c
RECEPTIONIST SERVER NAME	ADDRESS	STATE FLAG
RECEPTIONIST SERVER a	16. 85. 102. 01	0
RECEPTIONIST SERVER b	22. 36. 155. 02	0
RECEPTIONIST SERVER c	18. 24. 233. 01	1
RECEPTIONIST SERVER d	34. 26. 111. 01	1
RECEPTIONIST SERVER e	45. 88. 188. 02	0

FIG. 43